

Zwitterionic Imides

Abstract

Zwitterionic imide compounds are provided according to the formula: R₁-SO₂-

- 5 N⁻-SO₂-R₂⁺, where R₁ and R₂⁺ are any suitable groups. Typically R₁ is a highly
fluorinated alkane and R₂⁺ contains a quaternary ammonium group or a heteroatomic
aromatic group having an cationic nitrogen, such as: pyridiniumyl, pyridaziniumyl,
pyrimidiniumyl, pyraziniumyl, imidazoliumyl, pyrazoliumyl, thiazoliumyl,
oxazoliumyl, or triazoliumyl. Zwitterionic liquids are provided, typically having
10 melting points of less than 100 °C and typically having a solubility in water of less than
5% by weight.